



SIRIUS Compact load feeder Reversing starter for IO-Link 400 V 24 V DC
8...32 A IP20 Connection main circuit: Screw terminal Connection control
circuit: screw terminal

product brand name	SIRIUS
product designation	Compact starter for IO-Link
design of the product	reversing starter
product type designation	3RA65
General technical data	
product function control circuit interface to parallel wiring	No
product extension auxiliary switch	Yes
power loss [W] for rated value of the current at AC in hot operating state	5.4 W
• per pole	1.8 W
power loss [W] for rated value of the current without load current share typical	3.4 W
insulation voltage rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 000 V
degree of protection NEMA rating	other
shock resistance	a=60 m/s ² (6g) with 10 ms per 3 shocks in all axes
vibration resistance	f= 4 ... 5.8 Hz, d= 15 mm; f= 5.8 ... 500 Hz, a= 20 m/s ² ; 10 cycles
mechanical service life (switching cycles)	
• of the main contacts typical	10 000 000
• of auxiliary contacts typical	10 000 000
• of the signaling contacts typical	10 000 000
electrical endurance (switching cycles) of auxiliary contacts	
• at DC-13 at 6 A at 24 V typical	30 000
• at AC-15 at 6 A at 230 V typical	200 000
type of assignment	continuous operation according to IEC 60947-6-2
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.05.2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
relative humidity during operation	10 ... 90 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	8 ... 32 A

formula for making capacity limit current	12 x I _e
formula for breaking capacity limit current	10 x I _e
yielded mechanical performance for 4-pole AC motor • at 400 V rated value	15 kW
operating voltage at AC-3 rated value maximum	400 V
operational current • at AC at 400 V rated value • at AC-3 at 400 V rated value • at AC-43 — at 400 V rated value	32 A 32 A 29 A
operating power • at AC-3 at 400 V rated value • at AC-43 — at 400 V rated value	15 kW 15 000 W
no-load switching frequency	3 600 1/h
operating frequency • at AC-41 acc. to IEC 60947-6-2 maximum • at AC-43 acc. to IEC 60947-6-2 maximum	750 1/h 250 1/h
Control circuit/ Control	
type of voltage	DC
control supply voltage 1 • at DC rated value • at DC	24 V 24 ... 24 V
holding power • at DC maximum	3.4 W
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of NO contacts of instantaneous short-circuit trip unit for signaling contact	0
number of CO contacts of the current-dependent overload release for signaling contact	0
operational current of auxiliary contacts at AC-12 maximum	10 A
operational current of auxiliary contacts at DC-13 at 250 V	0.27 A
Protective and monitoring functions	
trip class	CLASS 10 and 20 adjustable
breaking capacity operating short-circuit current (I_{cs}) • at 400 V	53 kA
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor • at 480 V rated value	32 A
yielded mechanical performance [hp] for 3-phase AC motor • at 200/208 V rated value • at 220/230 V rated value • at 460/480 V rated value	7.5 hp 10 hp 20 hp
Short-circuit protection	
product function short circuit protection	Yes
design of short-circuit protection	electromagnetic
design of the fuse link • for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A
Installation/ mounting/ dimensions	
mounting position • recommended	any vertical, on horizontal standard mounting rail
fastening method	screw and snap-on mounting
height	170 mm
width	90 mm
depth	165 mm

Connections/ Terminals		
product component removable terminal for main circuit	Yes	
product component removable terminal for auxiliary and control circuit	Yes	
type of electrical connection <ul style="list-style-type: none">for main current circuitfor auxiliary and control circuit	screw-type terminals screw-type terminals	
type of connectable conductor cross-sections <ul style="list-style-type: none">for main contacts<ul style="list-style-type: none">— solid— finely stranded with core end processingat AWG cables for main contacts	2x (2.5 ... 6 mm²), 1x 10 mm² 2x (2.5 ... 6 mm²) 2x (14 ... 10), 1x 8	
type of connectable conductor cross-sections <ul style="list-style-type: none">for auxiliary contacts<ul style="list-style-type: none">— solid— finely stranded with core end processingat AWG cables for auxiliary contacts	0.5 ... 4 mm², 2x (0.5 ... 2.5 mm²) 0.5 ... 2.5 mm², 2x (0.5 ... 1.5 mm²) 2x (20 ... 14)	
Safety related data		
B10 value with high demand rate acc. to SN 31920	1 500 000	
proportion of dangerous failures <ul style="list-style-type: none">with high demand rate acc. to SN 31920	50 %	
protection class IP on the front acc. to IEC 60529	IP20	
touch protection on the front acc. to IEC 60529	finger-safe	
Communication/ Protocol		
product function bus communication	Yes	
protocol is supported <ul style="list-style-type: none">AS-Interface protocolIO-Link protocol	No Yes	
product function control circuit interface with IO link	Yes	
IO-Link transfer rate	COM2 (38,4 kBaud)	
point-to-point cycle time between master and IO-Link device minimum	2.5 ms	
type of voltage supply via input/output link master	No	
data volume <ul style="list-style-type: none">of the address range of the inputs with cyclical transfer totalof the address range of the outputs with cyclical transfer total	2 byte 2 byte	
Electromagnetic compatibility		
conducted interference <ul style="list-style-type: none">due to burst acc. to IEC 61000-4-4due to conductor-earth surge acc. to IEC 61000-4-5due to conductor-conductor surge acc. to IEC 61000-4-5due to high-frequency radiation acc. to IEC 61000-4-6	4 kV main circuits, 2 kV auxiliary circuits, 2 kV IO-Link, 2 kV limit switches, 2 kV line hand-held device 4 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection 2 kV main circuits, 0.5 kV auxiliary voltage with upstream overvoltage protection 0.15-80Mhz at 10V	
field-based interference acc. to IEC 61000-4-3	80 ... 3000 MHz at 10V/m	
electrostatic discharge acc. to IEC 61000-4-2	8 kV	
conducted HF interference emissions acc. to CISPR11	150 kHz ... 30 MHz Class A	
field-bound HF interference emission acc. to CISPR11	30 ... 1000 MHz Class A	
Supply voltage		
Supply voltage required Auxiliary voltage	Yes	
Display		
number of LEDs	5	
display version as status display of the input/output link device	green/red dual LED	
Certificates/ approvals		
General Product Approval	EMC	Functional



Declaration of Conformity

Test Certificates

Marine / Shipping

[UK Declaration of Conformity](#)



[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA6500-1EB42>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA6500-1EB42>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-1EB42>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

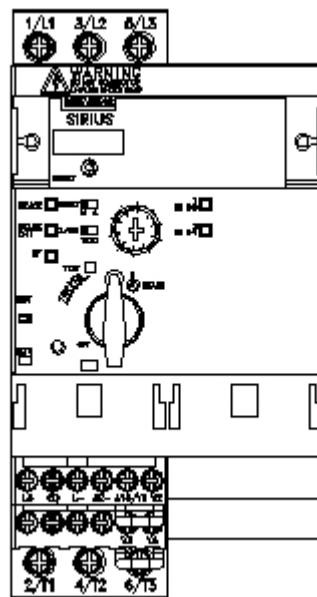
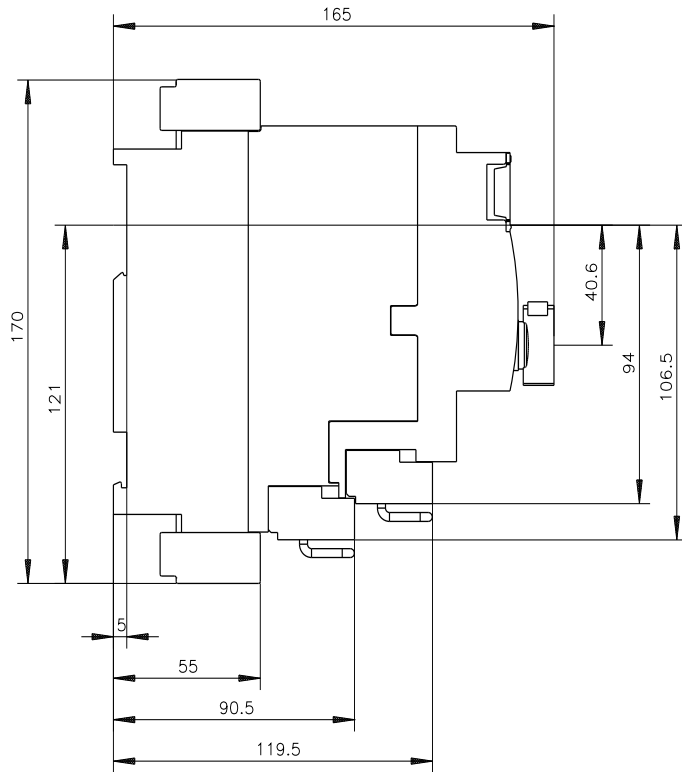
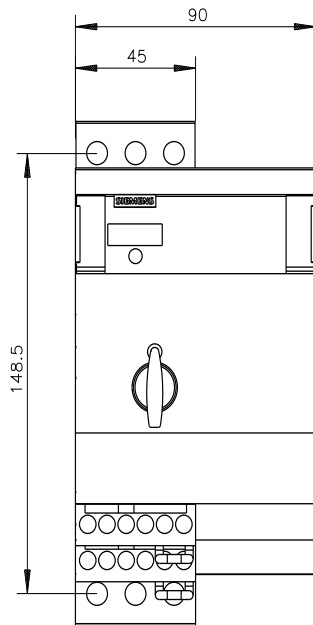
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA6500-1EB42&lang=en

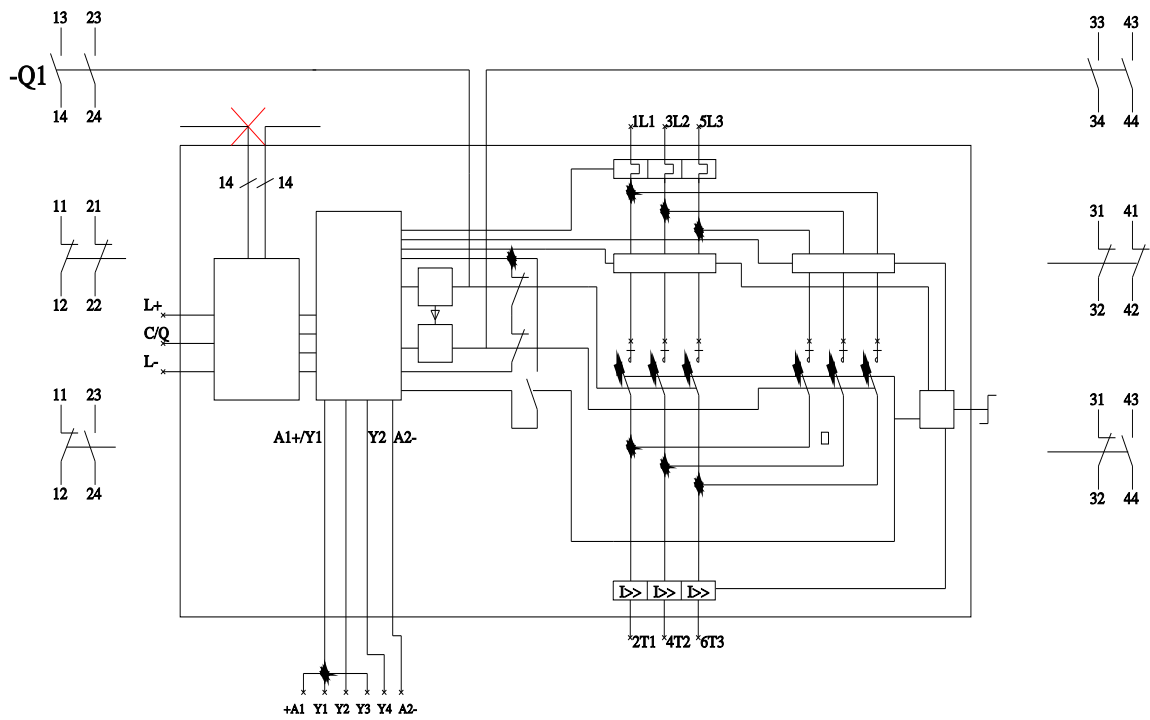
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA6500-1EB42/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA6500-1EB42&objecttype=14&gridview=view1>





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